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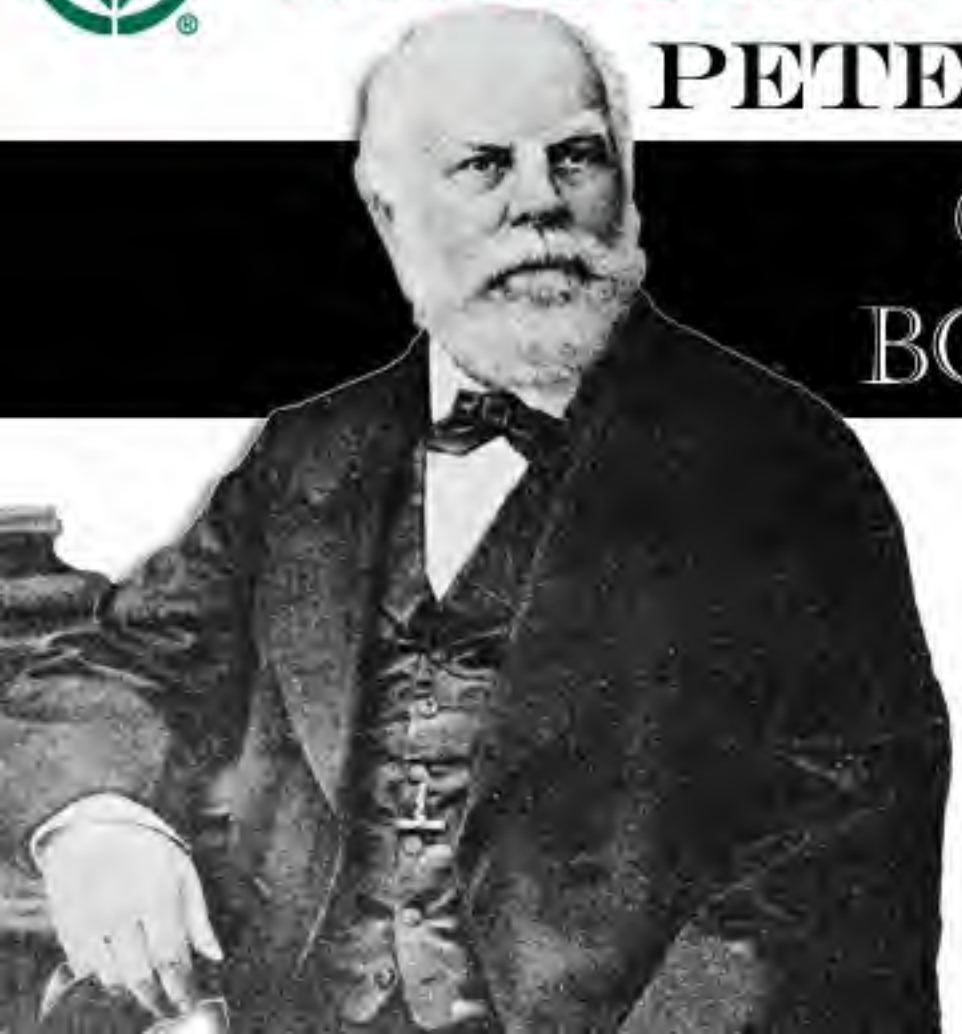

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Hort Bot Monac Aug 11 1869

= Lechuguilla ?

Agave heteracantha Jacc. The original plant, sent by Jurczanowski Kanowski flowered here a month ago 12 ape 6 feet high, very densely covered with pairs of flowers in the axil of linear-subulate bracts —

The flowers have all fallen, but from the top of the scape many buds are sprouting — some 5 or 6, promising to continue the growth of the plant, which however shows no signs of decay. — No branch in the axils of the leaves as I found them in the allied Berlin plants,

7958

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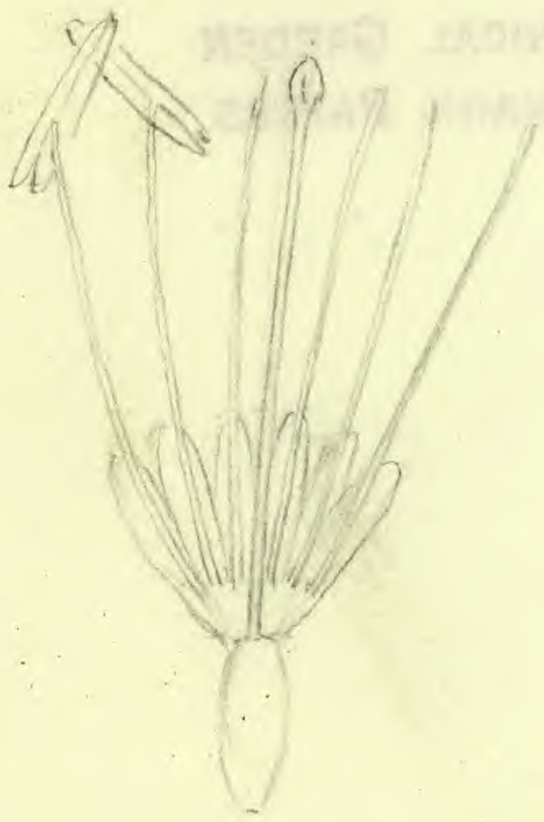
"Agave heteracantha Jacobi" March 1 1871

ex Herb Munchen Aug. 1869.

marked: Hbm 12. III. 69



20 mm

13½ { 10 / 3½

10

perigon longer than ovary, 13½ mm
lobes 3 times as long as
infundibuliform Tube
stamens inserted at apex of
tube, base of lobes
exerted about as long
as ovary & perigon together.
anthers 11 mm long deeply
bifid below, inserted below
middle

ovary 10 mm
perigon 13½ mm
Tube 2½ mm
lobes 10 mm

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ALEXIS . LEHLBACH
APOTHECARY AND CHEMIST.
Marble Building, cor. 4th and Olive Sts.,
ST. LOUIS, MO.

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May 16 1872

Achatocarpaceae

Achatocarpus Tuss – 2 sp.

weight 1251 N. 682

small fruit, globose N. 682

+150

seed smooth shining

cells convex, scarcely pitted

×4

×4

cayx fruit, ovate, seed strongly shining

cells often sunk N. 1432

seeds dark beige

Haage & Schmidt

Wright 316 Salsola

has the same fruit

long ovary

×4

×150

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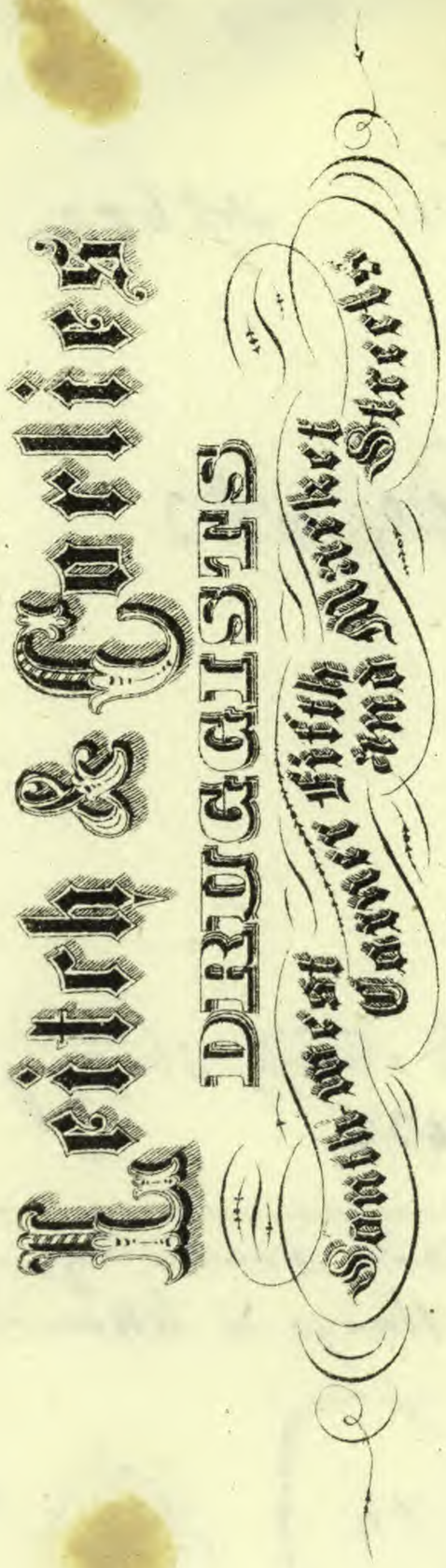

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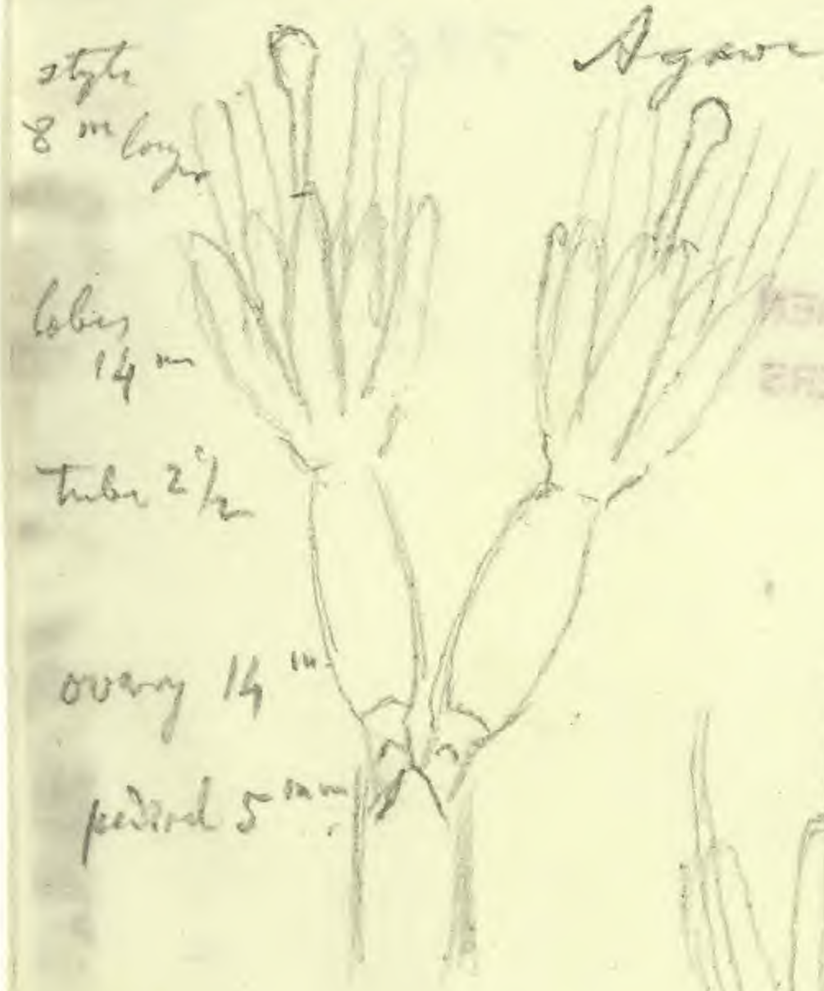
Agave heteracantha geminiflora May 18 '82

West Texas Dr Havard



with 13-13½ mm

insertion of filaments just below face

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GEORGE ENGELMANN HERBARIUM
CAMBRIDGE, MASS.

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Smith & Curtis
DRUGGISTS
Corner Fifth and Olive Streets
Opposite Fifth Market
Saint Louis

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A. helianthoides

699 Dr J Boggs, east of Denver | Nov 24 1871
May 18 1874

Anth 10 mm

" stage 10 feet high

13

immature fruit

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HOELKE BROS.,

APOTHECARIES AND CHEMISTS,

S. W. Cor. Sixth & Market Sts.,

ST LOUIS, MO.

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Act Acad Sci. Cienc. 16.2.675

Agave heteracantha Jacobi. Kunth En V. 836

Jacobi Agav. p. 41. nachtr p. 14

Known only from flowerless plants

flowered in March Bot Gard 12/3 1869

Leaves described as larger than our Lechuguilla

and with flatter variously divaricate spiny

teeth at last are detached with

the margin of leaf

flowers from seeds 1st-1871, scarcely

distinct from Lechuguilla.

= all tube very short, stamens inserted in

throat.

Jacobi Agav. p. 41 leaves 1½' long 2½" wide, spine 1½" long,
grooved; marginal spines varies, flat, curved backward
app. p. 16 scarce of flowers
Dr Flagg says scape 10' high, leaves 10-20 inches long

over

Nº 2600 OLIVE STREET,

ST. LOUIS, MO.

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Dr George Engelman, Office 3003 Locust S

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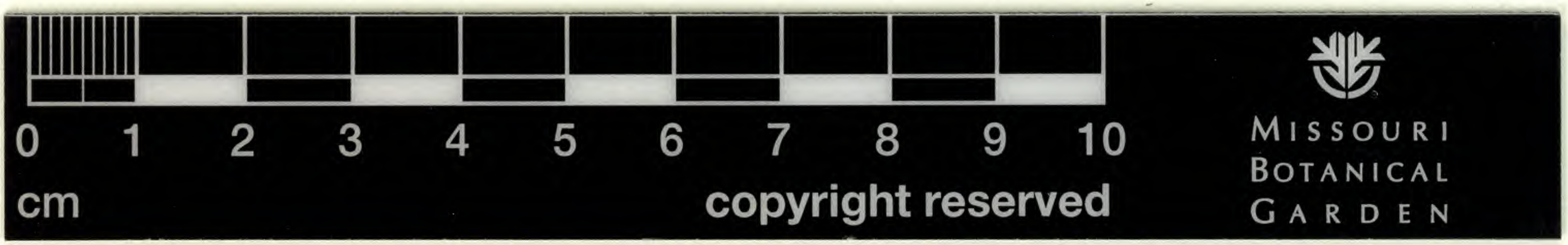

A. heterosantha Juss. Act. Ac. Lap. Carol. 16.2. 675

A. Boulgeri Salm in Bonplandia VII. 92

A. Lechuguilla Torr Bot Mex Bound

A. heterosantha Juss Descr Trans Ac St Louis 3. 306

(compare styles!)

Flowers 1 pair to 3 or even 10 in each axil

Perigon

tube 2 - 3½ mm long

stamens inserted in throat or a little below it

anthers

exposed equal to Cylinder -

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8 ½ wide
Ovary 10-20 mm long

style 10" 6"

anth 14" 13 10 16

smallest & one branch perig. 19. 16 14.

Caps 8-15 lin with persistent
strong style
and stigmas

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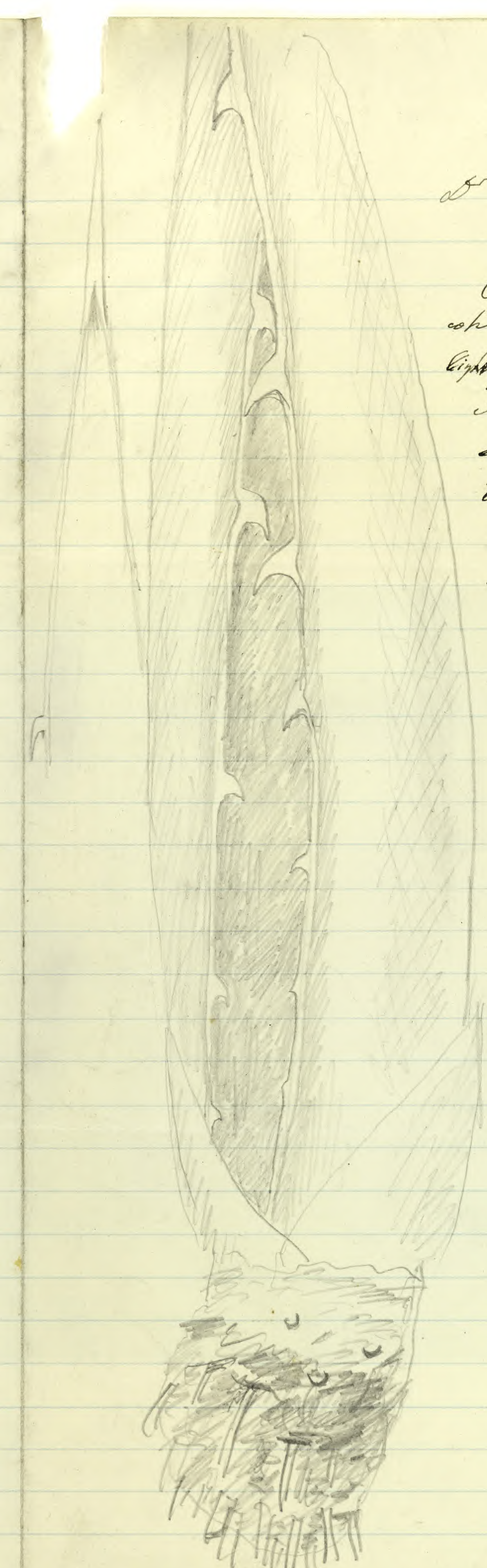

Agave lutescantha ?

D. E. Palmer mi Nov 1878

San Luis Potosi ;

Leaves in shady situations: Bot Garden
with dark tip ⅛ — 1¼ long
conic terminal spine — 1½ inch long, slender, torete
slightly channeled only ⅛ or ¼

Dark lignous margin all down the
edge, bears white corky recurved
teeth, at long intervals — finally
detached ; — teeth light homolar towards tip
at last quite white. — first small
teeth some 4 or 5 inches below tip
, that upper part of the white margin is
apt to split into short thin fibres (compare
A. (sarmentosa)

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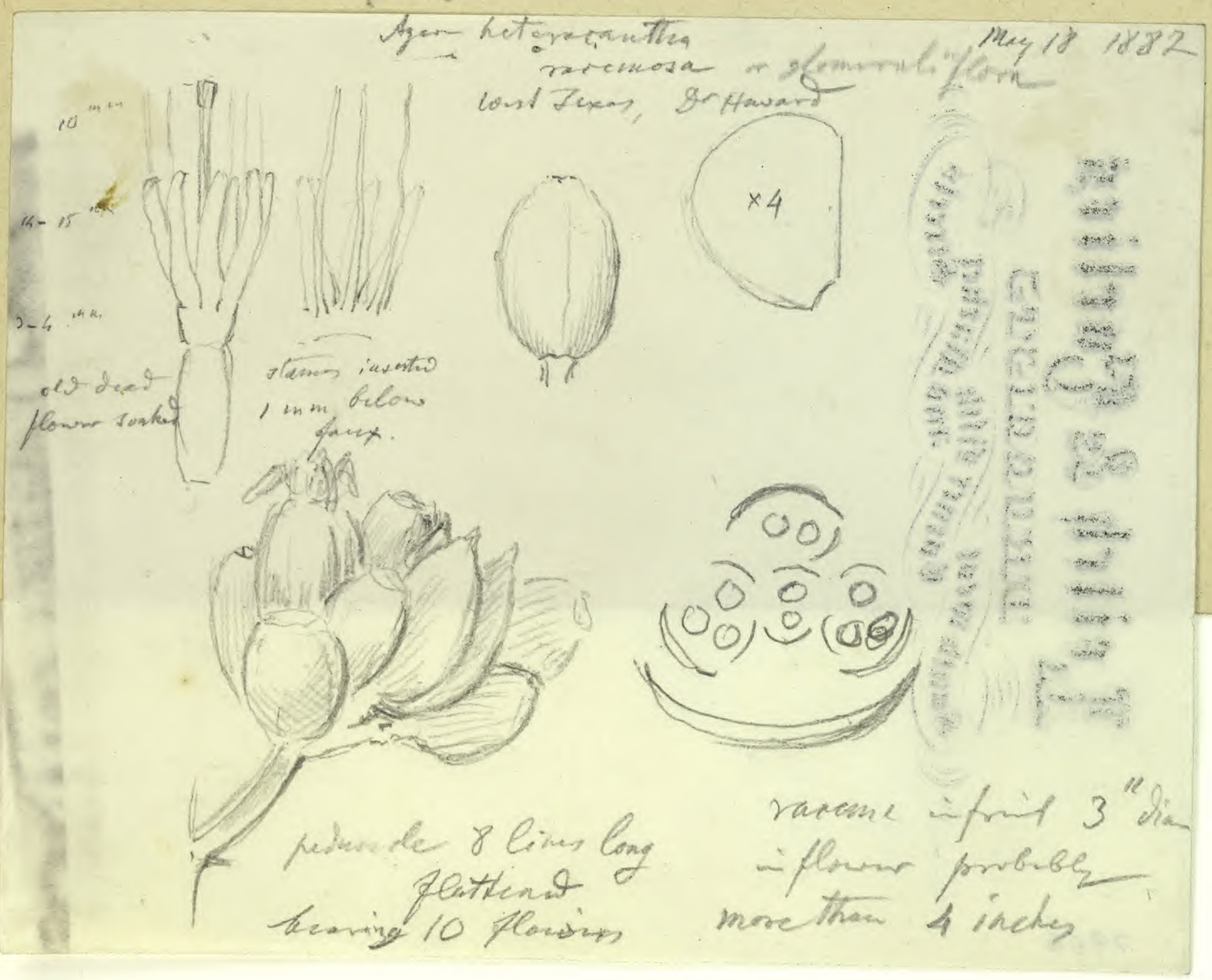
3 Agave heteracantha from glomerule flora

Oct 1882 for Gen Div

The investigations of Dr V. Havard of the Medical Staff of the U.S. Army have brought out some very interesting facts in regard to this species, which may teach us a lesson about the variability of characters taken from the inflorescence in the species (or the form which is known as A Bourgeai) is very abundant in the mountain regions of West Texas and along the upper Rio Grande, from El Paso to Presidio, and has been recently discovered in the Davis Mts by Mrs Wilcox and Dr Havard. Specimens are found with both flowers, over 6 inch-wide, and others about 2 inch-wide, in clusters of pairs, from 3 to 6 and often 10, on peduncles 1/2 to 3/4 inches long; which seem to form a passage to the immediate species.

The figure represents a cluster of 10 capsules, and shows the arrangement. The whole cluster consists of 4 parts, 2 which bear 3 flowers transversely & 3 ft. each, the portion which bears 2 flowers being cut off. A similar cluster consists of 2 flowers & a similar peduncle with the antitheca in position.

G. Engelmann



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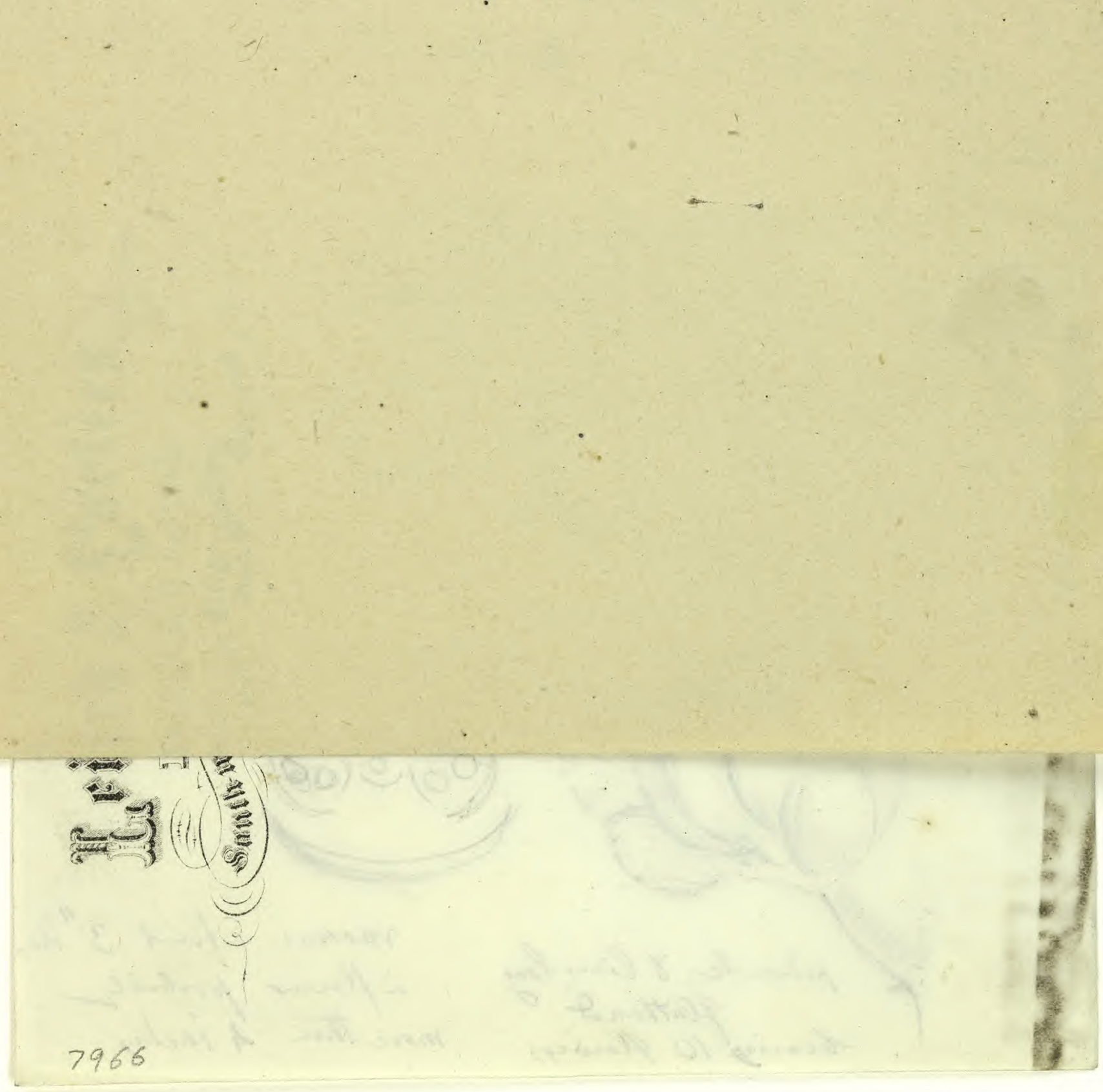

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Agavaceae floreates

Genera & species

Jacobi

p. 104 A. univittata Jac. A. X elapens is Royl A. polyacantha short scape 6 feet (of which spike 2½') – tube cylindric, lobes 9''' long 2 or 3 times longer than tube, stamens at base of lobes, anthers 8'''

120 A. Bouchei Jac scape 6' perigon 1'' tube & spreading lobes equally long; stamens from base of lobes; style 2½'' much longer than stamens

123 A. densiflora Hook scape 6' perigon salverform scape from the axil of upper leaves (always?). see Hook Bot Mag 5006

130 A. pendula Schnittsp scape 3 feet, peduncles fl. 1 or 2 lobes = tube anthers 5–6'''

139 A. glaucescens Hook [= A. attenuata Hort Berol. Salm] scape 8 feet fl 1½'' lobes spreading, stamens a little longer ~~same length~~ – tube 6–7'''

146 A. yuccaefolia Redout scape 12' (20' fide Hooker). flowers 1 or 2 Perigon 13–14''' lobes twice as long as tube, filaments from base of lobes

150 A. dasylirioides Jac & Bouch scape 6' peduncles spike fl. 1½'' perigon 12–14''' lobes 7–8''' (tube thereof 5–6''') stamens at base 1¾''

154 A. striata Jacc, scape 10–12' x 2'' perigon 1''–13'''

158 A. recurva Jacc scape 15'

160 A. geminiflora Jacq scape 18–24' lobes spreading or reflexed

165 A. Celsiana Hook scape 4'

167 A. chloracantha Salm scape 5–6' perigon 1½'' flowers at base of lobes, 2½'' long

187 A. spicata Cav 15' scape flowers at base of lobes 2–3 flowers together

198 A. filifera Salm scape 5' perigon 1'' tube infundibuliform. flowers from throat, long exsert 2'' anthers 6''' long 6'''

199 A. filamentosa Salm scape 5' flowers 20–21''' Tube ~~infundibuliform~~ 4''', lobes 9–10''' ~~flowers from throat~~, 1½'' long, ~~anthers 7½'' long~~ ~~long~~ ½''

Geminiflorae

Tarde

p. 200 A. schiedigera, Lem scape 5½' fl. a little longer than filiform

202 A. Coahuantha scape 12–13', peduncle 2–3 fls capsule 1–1½ lth

205 A. univittata Hawr scape 10' ott 3 flowers

4–5 flowers together

209 A xylacantha Salm scape 9' capsule p16: tube campanulate 3''': stamens prom

.244 A. Haselloffii Jacc scape 5' ovary 10''' perigon 1½" long 2" diam.

lobes 7''' long · stamens 2½", a little long the perigon (near Bouché)

307 A Goepperiana Jacc. scape 2¾' (near Bouché) ovary 8–9'''

Perigon 1", tube 5''' infundibl 6''' wide lobes 6''' long spreading

stamens from throat 2" long, anthers 8''' style 3¼"

? stamens not inflexed in elabatus !!! ??

311 A. nyassicola Regel scape 6' light spike 20" fl. 1½"

ovary 5''' tube cylindric lobes spreading stamens 2¼" anth 7'''

313 A. Allenstiana Hort Paris scape 13' ovary 5''' perig 8'''

divided to base, lobes 7''' long, stamens from base of lobes

2''', anth 6'''

app. 14 A. helenaantha Jacc. ovary 7½''' perig 8–8½''' divided to base

stamens 2'''

app. 30 A. Xalapensis Roezl scape 7½' ovary 6–7'''

lobes 11–12''' stamens from base of lobes, 3''' long, anthers 8'''

style 4¾" capsule ovoid 3/4" long

app 33 A. horizontalis Jacobi, scape 3½' spike 26" 3–8 flowers

Together ovary 8''' perigon 20''' lobes 7''' long stamens

from base of lobes, 28–29''' long anthers 9–10''', capsule 1"

app 40 A. oblongata H. Belg scape 4' ovary 8''' perig 1½"

tube dilated = lobes 9''' stamens from throat 2½" anth 8'''

capsule oblong ovoid 1¼" long

app 41 A. Ouwelgheemiana H Belg. scape 3½' spike 2' flowers 2–3

tube funnelshaped, lobes 8''' long stamens from throat 2¼" anth 7'''

Capsule 1."

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Jarobi

Apr. 43. A. Ekvenbergia Jac. Scapo 4–5′ Perigon 1″ lobis 7‴
Spicatis x refracta – staminibus 28‴ antheris 9‴ Ovario 6‴

[These 2 foolscap folders enclosed sheets 33 – 71].

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79.68

I Tubus Calicis multo longior.

t.: l.
app. 33. A. konjotelis Sav (13:7)
244 A Hasslaffii Sav (14:7)

II Tubus Calicis subaequalis

120 A Bouchei Sar (6:6)
130 A pendula Sm-Hsp x:x
150 A dasyclivides Sar & Bonch (6:8)
~~244 A Hasslaffii Sar ? (tubus a Calli staminibus)~~
207 A Goepperiana Sar (5:6)
ap. 40 A elongata H Bdg (9:9)
ap. 43 A Ehrenbergii Sav. (5:7)

III Tubus Calicis multo brevior

104 A. mexicana Sar. (4:9)
146 A yuccafolia Rob. (4:8)
199 A flamentosa Salm (4:9)
209 A. Xylacantha Salm (3:2)
213 A Ellenecktiana H Bar. (1:7)
ap. 14 A heterocantha Jacq (1:8)

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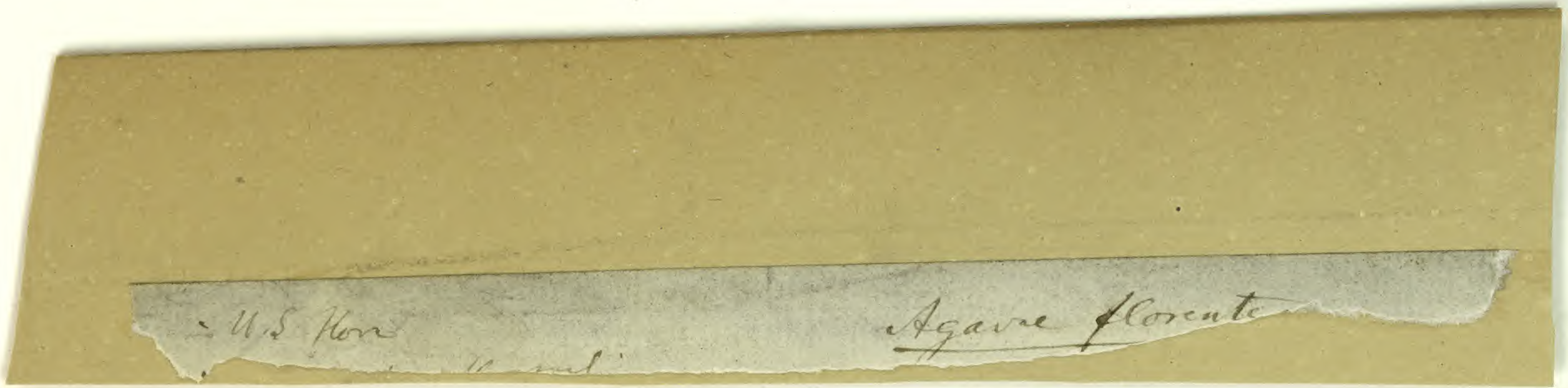
= U.S. Flora
Agave Floreata

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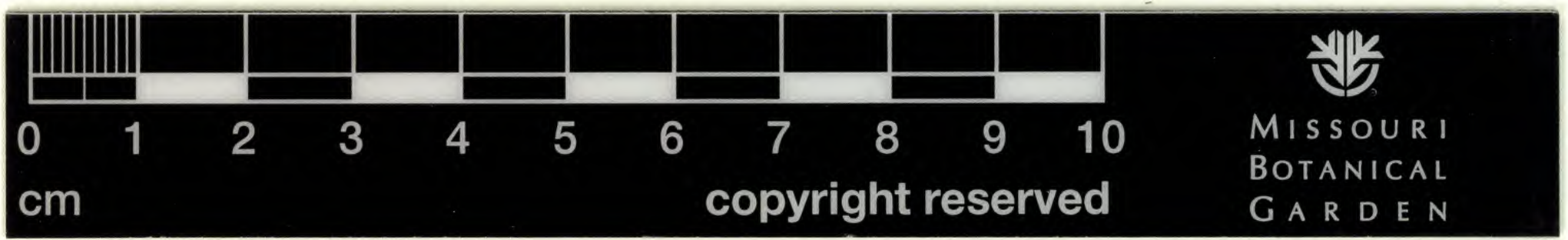
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~~A. vivipara ÷ Hort~~

Agavae geminiflorae

A. filamentosa Salm. Dycki 199 ÷ Hort Kew. Sept 1869

~~A. Ousselghemiana Hort Gueldres Apl. 1869 see below~~

V A glaucescens Hook Bot Mag 5393 Jacobi p. 139 — p. 256 reform A. attenuata

X A. yuccaefolia Redouté Bot Mag. 5213 (1860) Jacobi 146 ÷ fl. single on ÷ spike "

÷ Hookers figure fl. ÷ pedic. Spec ex Hort Gueldres 1869

A. Utahensis Engelm. 1871 ex spec.

A paniculata Torr. ex spec. & Torr Bot Bound. p. 214

A. Schottii Eng A. geminiflora Torr ibid. ex spec. & Torr.

A. heteracantha Torr. A. Lechuguilla Torr. A Bigelovii Salm. ex spec. Jacobi app. 14

A. falcata Eng. Schiller (= Californian Hort Kew?) ex spec.

A. geminiflora Jacobi ex London Art. Brit pg 2903 et descr.

& ÷ Jacobi p. 161 Kunth 831

A. mitis Hort Monach. Jacobi p. 134. no fl. known, Till I saw it ÷ HB Berol. 1869

see also Jacobi App. II. 82

A. Bouchei Jacobi p. 120 ex sp. ÷ Hort Berolin 1869.

A. Sartorii C. Koch, Jacobi p. 128 ÷ fl. ex sp. ÷ Hort Berol. 1869 fl. ÷ Jacobi App. II. 84

A polyacantha Haw. ex sp. ÷ H Berlin 1869 Jacobi 73 ÷ Hort fl

polyacantha Koch for parts appd II. 83 — ÷ flower.

~~scribed properly~~ A. Chlorantha Salm

A. attenuata Hort Berol. Salm. Jacobi 176 (÷ Hort flowers) ex spec. ÷ Hort Cels 1869

A desglinioides Jacobi & Bouché, Jacobi 150 & ex spec ÷ Hort Berol. 1869

~~A yuccaefolia~~ Re

A. Celsiana Hook Bot Mag. 4924 Jacobi 165

A. Mexicana Salm Jacobi 167

A densiflora Hook Bot Mag 5006 Jacobi 123

A Ehrenbergii Jacobi app. 43

A. Mexicana Hort Paris Jacobi 313

A filifera Salm Jacobi (35 &) 198

B A Jacquiniana Jacobi (243) 307 filamenta in alabastro erecta ser ÷ Hort

A Haseloffii Jacobi 244

B A horizontalis. Jacobi app. 33 (÷ 3-8 flowers from one axil; similar probably to any Virginica mountain)

B A Coahuilla. Schiede Jacobi 202 flowers ÷ 3rd middle Carpet ÷

A. elongata (Hort Belg.) Jacobi app. 40

A. Ousselghemiana Hort Belg Jacobi App. 41 fl. ÷ 3d

F.C. in Hort Gueldres, April 1869

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A. pendula Schuttsp. Jacobi 130 flores single or ÷ pairs

? A. recurva Jacq. Jacobi 158 A. spicata no other data

A. rupicola Regel Jacobi (134) 312 = Dumpton Hook for Regel

A. schidigera Kom. Jacobi 200

A. spicata Can. Jacobi 187 fl. 2-3

? A. striata Jacq. Hook 4950 Jacobi 154

? A. emarginata Jacobi 104

? A. xylacantha Salm Jacobi 210 x 65 (description

no doubt a Gymnopleura, but Jacobi's species

= overgrown = any A virgata, not only 4-fl pedunc!

A xalapensis Regel Jacobi fl 80 (x 72)

V ? A. bulbifera Salm Jacobi 163 Kth 834 (inflorescence not known)

A. chiapensis Hook Bot Beltg. Jacobi p. 235 Pachter II. 80.

A. stricta Salm in Bonplandia 7.94 Jacobi 153 x Pachter II 86

A. micracantha Salm Bonpl 7.93 fl. fig. 327 ÷ Rep bot. vol 5.

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dron; and so the word is adopted by Poppig and Endlicher,* Lindley in his *Vegetable Kingdom* (1853), Eichler in the *Floræ Brasiliensis* of Martius, Bentham and Hooker† (1862), and, lastly, by Baillon in his *Histoire des Plantes*‡ (1871).

With the sanction of such an overwhelming amount of authority, I am satisfied to accept the name without any attempt at improvement. It has served for eighty years in botanical literature, and may fairly claim admittance to that of pharmacy.—*London Pharm. Journal.*

ADULTERATION OF BEESWAX.‖

BY ADOLPH W. MILLER, M. D., PH. D.

For a year or two past there has been offered in this market, and most probably elsewhere, an article termed "refined beeswax." It is unusually handsome in appearance and is generally represented as being strictly pure. It may be known by all of it being of a uniform bright-yellow color, entirely free from the sedimentary stratum of impurities ordinarily found in country wax. Its surface is clean and glossy, having no foreign particles adhering to it. On account of these apparent merits, it is usually sold at an advance on the price of the regular article. All of this so-called refined beeswax, so far met with, had been moulded into the shape of oblong blocks of uniform size, measuring about fourteen inches in length, eight in width and three in thickness, tapering slightly upwards, and weighing about eight pounds on an average.

The melting point of the refined wax was found to be 146° F., that of pure wax being 156° and that of paraffin from 137° to 140°. Its specific gravity is ·929, placing it again intermediate between beeswax, ·963, and paraffin, ·871. Being thus induced to suspect the presence of the latter body, 100 grains of the refined article were heated for fifteen or twenty minutes with one ounce of sulphuric acid to about 350° F.; several ounces of water were then added, and after cooling a sheet of paraffin weighing 80 grains was obtained, the loss representing the beeswax which had been carbonized by the acid. In order to verify the experiment, it was repeated with a composition of four parts paraffin to one of wax, when analogous results were obtained. 100 grains of pure paraffin, treated in the same manner, were recovered unchanged.

All the best text-books recommend fuming Nordhausen acid for this purpose, and state that an allowance must be made for a portion of paraffin charred by this acid. No one seems to have previously tried the ordinary commercial sulphuric acid, which was really found to be better adapted than the Nordhausen, as all the wax was carbonized and none of the paraffin affected.

The test is very readily applied, the only difficulty, and this a very trivial one, being the separation of the carbonaceous matter from the

* *Nova Genera ac Species Plantarum quas in Regno Chilensi, Peruviano, etc., legit. . . .* Lipsiæ, II. 1838.

† *Genera Plantarum*, I. 1862–68, index and p. 34.

‡ *Monographie des Menispermacees et des Berberidacees*, 1871. 36.

‖ Read at the Pharmaceutical Meeting of the Philadelphia College of Pharmacy, October 20.

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the dose of the solid extract would be from five to ten grains, to be repeated every two, three or four hours, or three or four times a day, according to circumstances.

As there seem to be no established data to be taken as a guide in its administration, the above, I should think, would be a safe approximation to the proper dose. Physicians, of course, can increase or diminish the dose as their experience and the indications seem to suggest or demand. In this way, after a while, the proper dose may be more accurately determined.

The fluid extract of guarana is most agreeably administered mixed with simple syrup or the syrup of orange, in the proportion of from fifteen to thirty drops to a dessert-spoonful of the vehicle.—*Extracted from the American Journal of Pharmacy for November*, 1874.

CHONDODENDRON OR CHONDRODENDRON?

BY DANIEL HANBURY.

In the *Pharmaceutical Journal* for Nov. 14, it is remarked that the authors of the *Pharmacographia* prefer to write *Chondodendron*, and not as the derivation of the word would seem to require, *Chondrodendron*. The proposal to insert an r in the second syllable emanated from Mr. Miers, who, in his *Monograph of the Menispermaceæ*, states that the word was originally mis-spelt through an error in the press.

As this name, which is that of the genus to which the Pareira Brava plant has been shown to belong, may come into more frequent use than hitherto, it is well that we should know what reasons may be urged in favor of each way of spelling.

The genus made its first appearance in the work of the Spanish botanists Ruiz and Pavon, entitled *Floræ Peruvianæ et Chilensis Prodromus, sive novorum generum plantarum Peruvianarum et Chilensium descriptiones et icones*, published at Madrid in 1794. Here we find it *Chondodendron*, with the derivation explained thus—"*a granorum copia quibus arboris truncus et rami obsiti sunt.*" This is in allusion to the Greek word χόνδρος, signifying *a corn, grain, or any small roundish mass;* and is appropriate to the plant by reason of the little black warty spots that cover the bark, chiefly of the younger wood.

From such an origin, coupled with δενδρον, *a tree*, the word *Chondrodendron* would naturally result; but for some reason—as, I believe, for the sake of euphony—the authors of the genus chose to drop the first r, and to write *Chondodendron*. That this was by no typographical error is obvious. The word occurs again and again; and though there are enumerated several "*erratas de impression*," *Chondodendron* is not among them. Four years after the *Prodromus*, the authors published their *Systema Vegetabilium Floræ Peruvianæ et Chilensis*, in which they still retained *Chondodendron:* in fact, the name has been almost universally accepted.

Thus De Candolle, in his *Systema*, published in 1818, as well as in the first volume of his *Prodromus*, which appeared in 1824, wrote *Chondoden-*

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"Mrs. Skinner is related to Ham
[illegible] found it used as a substitute
for soap in Peru, where he
saw it growing on a sandy plain.
It became however to be mix-
ed; it to be very nearly the
same as the Polianthes
Mexicana of Zuccarini,
which is described as having
white flowers, and is probably
an allied species."

"In the figure the filament
seems inserted in the
very throat" (Watson
Nov. 1875

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Agave Saponaria
Bot. Reg. 1839, misc. n. 141.

Tube decidedly green.
Lobes greenish.
filaments & style purplish.

Bot. Reg. 25, t. 55.
Oct. 1, 1839.

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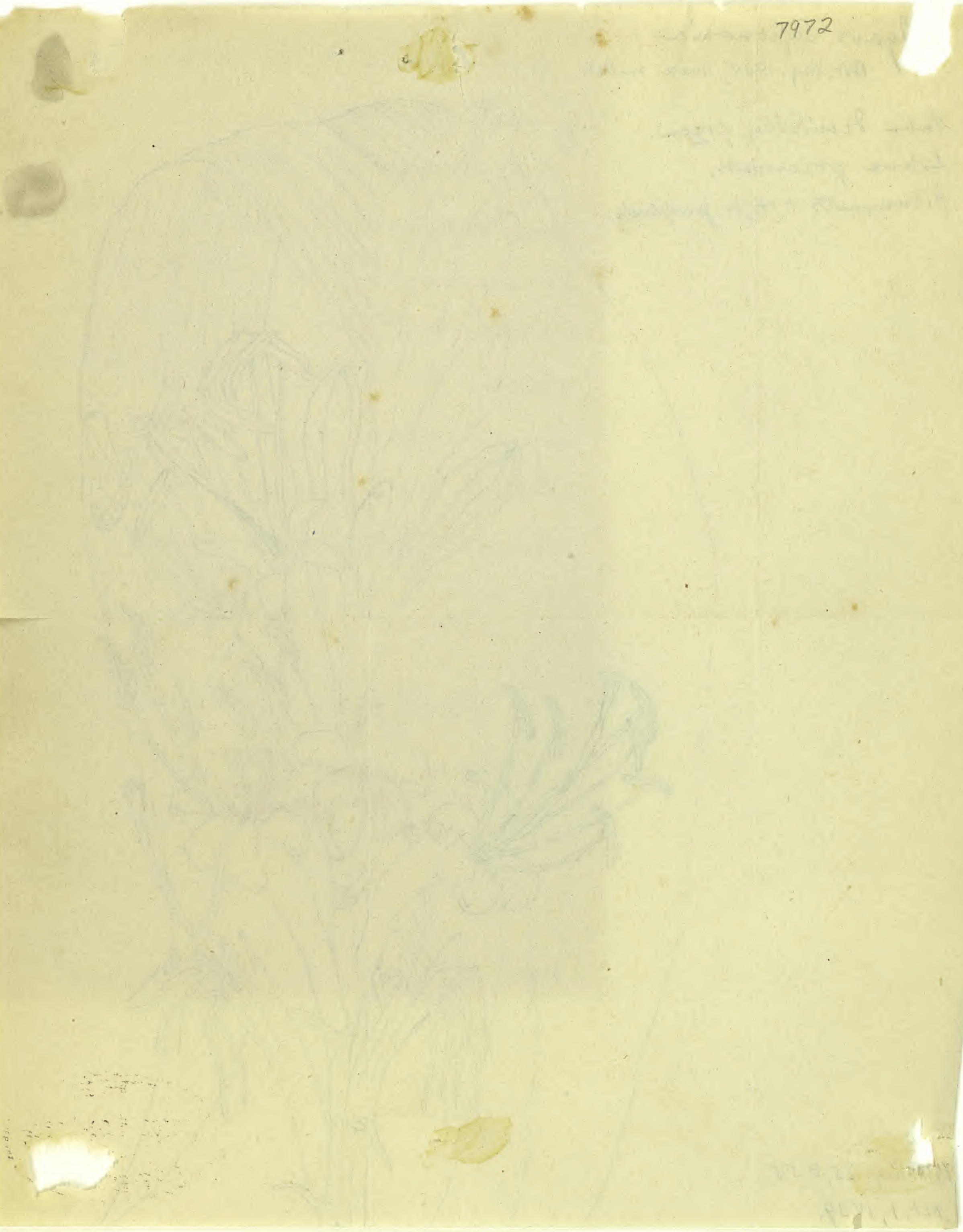

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Agave Saponaria Lindley, Jacobi 179 Peru, Lindley; Mexico, Ruthe

foliis mollis, mollitur acuminata 10-18 poll. Longa 2" Lata ~~sinuata~~ cartilagina. serru
concavo - canaliculata

scapus 2-3 pedalis spica 7 poll. Longa

flores subsessiles Sicci (1/2 poll dist.) 1/2 poll longi (vix genic)

perigonii semi-bfidi lobi reflexi (ex Lindley, Bot Reg. tab. 25. tab 55

staminea medio tubo inserta perigonio duplo longiora

stigma capitatum trigonum Descr ex Lindley (Kunth descr)

Agave Buchystachys Cav. Descr. 453 Kunth 5. 829.

foliis ensiformi-canaliculatis integerrima aromato - reflexa
2 pedalis, 2 poll lata

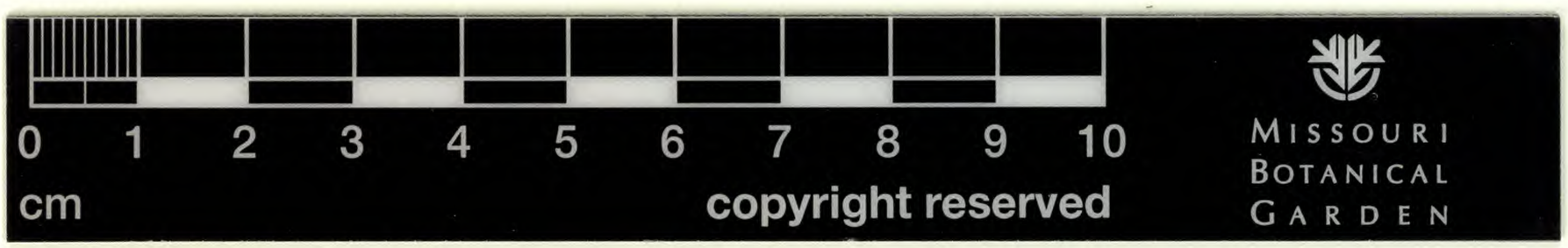
scapus 6 - pedalis spica densa 1/2 pedalis

flores 1 1/2 poll.

lobi reflexi (post fecundationem erecti)

filamenta perigonio duplo longiora maculata

stigma capitatum. Descr ex Kunth.



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Agrostis japonica
Steud

Ex. Herb. A. Gray.

over

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cm
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Missouri Botanical Garden

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Kew, Sept 7 1869

A. Saponaria Lindl, Mexico, has flowers, scape ... bears a single capsule — leaves glaucid like *A. Virginiana*, but much thicker, fleshier, and very delicately green — semulate, teeth much smaller and much more crowded than in *Virginiana*.

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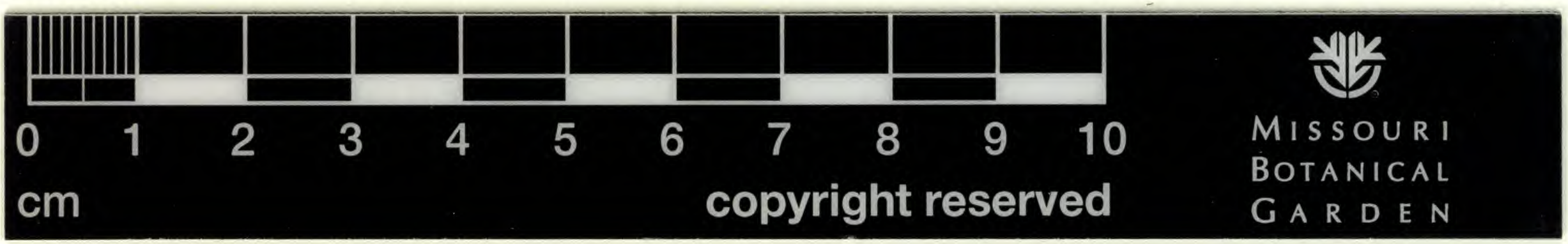
Agave Roezlegeri Salm. in Bonplandia VII. p. 92
C. Koch Wochenschrift 1860.
p. 47

"Leaves 8–9 inches long, 8–9 lines wide
with a coarse slender margin becoming red
brown spines, especially terminal one part
of leaf
Scape 8 feet high

"Lechuguilla" Lemaire Agav. p. 40



R. C. HARRISON,

508 Leffingwell Avenue,

Druggist & Apothecary

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G. F. ENGLEMAN, M.D.,

3003 Locust Street.

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Agave Roseligeri

Prov. Prov. del Norte, Texas

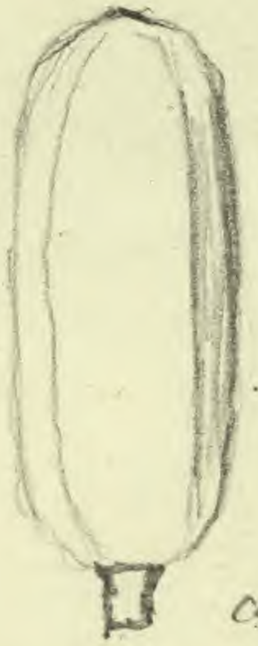
June 23 1881

Dr V. Havard 1880

11 Capsules in different

specimens of very different

size 11



x4

seed

slightly

caps 1/4 inch long

x4

2 3/4 inch long

caps 8-10 lines long.

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Alex. Leitch,

APOTHECARY & CHEMIST,

Cor 4th & Olive Sts. St. Louis.

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Agave Lechuguilla Torr 23 Sep 1866

— Poselgeri Salm ?

auth 12 lines

f. lacerata. Tubo brevissimo toto adnato

Agave Lechuguilla Torr Feb 14 1871

M Mex. C. Wright № 1907 = H6. Torr

lobes linear-oblong, much longer than the infundibuliform, almost incompressed tube; fl. 14 mm long and longer than the ovary.

Stamens inserted at the base of the lobes within the throat, broad, tapering more than twice as long as perigon. exceeding the thick 3 angled clavate style.

anther 11 mm long attached to middle, slightly emarginate below pointed above

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Leitch & Carlies

DRUGGISTS

South-west Corner Fifth and Market Streets

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ALEX. LEITCH,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St Louis, Mo.

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5

4

8

1

6

Vol. Portalegre 10 Oct 6 81

anth 7 lin

style 13 "

ovary 6

tube 1

lobes 8 } perig 9

filaments ¼ lobes longer than lobes

style 5 lobes longer

filaments inserted at throat

flowers - 2^{s}

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E. W. BARKHOEFER & C

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No. 2934 Olive Street, S. E. Corner Garrison Avenue,

ST. LOUIS, MO.

℞